Case No. 2,991.

COLGATE v. GOLD & STOCK TEL. CO.

{16 Blatchf. 503;[1] 4 Ban. & A. 415; 16 O. G. 583; Mer. Pat. Inv. 359.}

Circuit Court, S. D. New York. July 22, 1879.

PATENTS—ADJUDICATION OF VALIDITY—NOTICE—SUBSEQUENT ATTACK—PRIOR PUBLICATION—PRELIMINARY INJUNCTION—FORM OF ORDER.

1. The decision of this court in Colgate v. W. U. Tel. Co. {Case No. 2,995} confirmed.
2. The considerations stated which apply to a case where, after a patent has been sustained on final hearing, a new defendant, in a new suit, seeks to attack the patent for want of novelty.
3. What degree of clearness and certainty of description is required in a prior publication, in order to defeat a patent.
4. Where, on a patent issued in 1867, a suit was brought, in 1872, against its most conspicuous and extensive infringer, and was prosecuted with reasonable diligence, that was sufficient notice to all other infringers that the right conferred by the patent was to be maintained, to require a particular defendant who alleges laches in the plaintiff, to show affirmative acquiescence by the plaintiff in the use of the invention by the defendant.

{Cited in Green v. Barney, 19 Fed. 421.}

5: Form of an order for a preliminary injunction on a patent, in a case where the plaintiff exercises his rights by granting licenses.

{Cited in Hoe v. Boston Daily Advertiser Corp., 14 Fed. 916; Campbell Printing-Press & Manuf'g Co. v. Manhattan By. Co., 49 Fed. 933.}.

{In equity. Bill by Clinton G. Colgate against the Gold & Stock Telegraph Company to restrain infringement of letters patent No. 65,019.}

Betts, Atterbury & Betts, for plaintiff.

Porter, Lowrey, Soren & Stone, for defendant.

BLATCHFORD, Circuit Judge. This is a motion for a preliminary injunction to restrain the infringement of letters patent granted to George B. Simpson, May 21st, 1867, for an "improvement in insulating submarine cables." This patent has been sustained as valid by this court, on final hearing, in a suit brought on it by the same plaintiff against the Western Union Telegraph Company {Case No. 2,995}. The claim of the patent is as follows: "The combination of gutta-percha and metallic-wire in such form as to encase a wire or wires, or other conductors of electricity, within the nonconducting substance gutta-percha, making a 'submarine telegraph cable,' at once flexible and convenient, which may be suspended on poles in the air, submerged in water, or buried in the earth, to any extent, for atmospheric or submarine telegraphic communication, and for other electric, galvanic and magnetic uses, as hereinbefore described." Infringement by the defendant, by the use of the invention thus claimed, is not denied. The sole defence to the motion is an attack on the novelty of the invention. Under such circumstances, when the patent has been sustained on final hearing, against the largest and most wealthy telegraph corporation in country, after exhaustive research and full testimony and argument, and when, as here, the Western Union Telegraph Company is shown to own nearly one-half of the capital stock of the defendant, and the relations of the two companies are shown to be such that the defendant is substantially a part of the Western Union Telegraph Company, it is incumbent on the defendant, in adducing any new matter in this case, on this motion, to make it extremely probable, at least, that, if such new matter had been put in evidence in the former case, a different result would have been reached by the court

In construing the specification of the patent, in the former case, the court said, in its decision: "It is plain, from the language of this specification, that the point of the invention is to make use of the fact that gutta-percha is a non-conductor of electricity, to insulate, by means of gutta-percha, a metallic wire, which is a conductor of electricity, and thus pre-Tent the escape of electricity from the metallic wire, when it is suspended in the air, or submerged in water, or buried in the earth, when, but for such insulation, the electricity would escape from the metallic wire. The mode of insulation described is to combine the gutta-percha and the metallic wire in such manner that the wire will be covered on all sides with a uniform coating of gutta-percha. Adequate means of softening the gum and putting it into such condition as to permit it to be so combined with the wire are set forth;

and it is declared, that such mode of combination and insulation confines the electric current to the wire, and shields the wire from contact with all external electric influences. It is manifest that the gist of the invention is the discovery of the fact that gutta-percha is non-conductor of electricity, and the application of that fact to practical use, by combining it, by the means specified, with a metallic wire, in the manner described, and then using the cable formed by such combination for the purpose of conducting electricity along the enclosed wire." In regard to the novelty of the invention the court said. "Nothing that has been put in evidence by the defendant carries back the publication of the discovery of the insulating properties of gutta-percha to a date earlier than the 1st of March, 1848. That is the date of the publication in England of the discovery of such properties by Faraday. It is entirely clear that Simpson had, prior to that time, made a like discovery." The court then took as the date of the discovery by Simpson, the 24th of January, 1848, being the day on which he swore to his first specification, which he filed in the patent office on the 31st of January, 1848, which was a date sufficiently early to antedate the publication of Faraday's discovery, although the plaintiff contended for a date as early as November 22d, 1847.

An extract from a work in German, called Dingler's Polytechnic Journal, was put in evidence in the former case. A translation of the material parts of it was as follows: "Insulation of the wires of electric telegraphs. The public papers announce, that the experiments which the Prussian government is having tried at present, in respect to the most serviceable mode of constructing electric telegraphs, are turning out very favorably for the laying of the wires underground in coatings of gutta-percha, so that, probably, all public telegraphs will be laid in this manner. * * * If the insulation of the wires underground, discovered by Lieutenant Siemens, keeps good, all important towns can be easily connected with the capital." In regard to this extract, the court said, in its decision: "The publication in Dingler's Polytechnic Journal of 1848 gives an account merely of experiments then in progress, and not of a completed invention, even if the part of it in question was published prior to Simpson's invention, and it does not set forth the insulating or non-conducting

property of gutta-percha for use with a telegraphic wire under water." The defendant now introduces in evidence a publication in German, which was not in the former case, namely, the Bremen Gazette, of Sunday, December 19th, 1847, which contains an article, of the material parts of which the following is a translation: "Berlin, December 16. The trials which the government here is, at this time, causing to be made concerning the introduction of electromagnetic telegraphs best answering the purpose, do result, in the highest degree, in favor of laying the wires underground in coatings of gutta-percha, so that, probably, all government telegraphs will be constructed in this manner, and it will be no longer necessary then to use for that purpose the railroad embankments, but the turnpikes may be used, under the pavement of which the lines will find safe location, and no special guarding of the same will be necessary. The trials, under the direction of Major-General O'Etzel, of Privy Councillor of Finance Mellin, and of Professor Dove, who constitute the royal commission, are carried out by Lieutenant Siemens. * * * If the insulation of wires underground, invented by Lieutenant Siemens, proves lasting, then, by means of it, all the principal cities may be easily put in communication with the capital." It is very manifest that the article in the Bremen Gazette conveys no more information than the article in Dingler's Journal, so that this defence was passed upon in the former case. Neither of them describes, or would enable any person to construct, a telegraph cable, consisting of a telegraph wire, covered, as Simpson's specification states, "on all sides, with a uniform coating of gutta-percha," such cable being "flexible and convenient," and capable of being "suspended on poles in the air, submerged in water, or buried in the earth." All this is embraced within the definition of the invention and the construction of the claim, given in the former case. There must not only be insulation by means of gutta-percha, but insulation "by the means specified" and "in the manner described." The extent of the article in the Bremen Gazette is, that the wires are laid "underground in coatings of gutta-percha," and thus insulated. How the coatings of gutta-percha are applied, or what their extent is, is not stated, nor is it said that the wire is covered on all sides with the coating, or that the covered wire is flexible or is capable of being suspended on poles in the air or submerged in water. The affidavit of the defendant's expert, Mr. Renwick, does not advert to these considerations, nor does that of Mr. Griffin, nor that of Mr. Pope, nor that of Professor Doremus. On this subject the affidavit of Mr. Burrill, on the part of the plaintiff, says, that the article in the Bremen Gazette is substantially identical with that in Dingler's Journal. It says, further: "Said publication in the Bremen Gazette and in Dingler's Polytechnic Journal did not, in my opinion, at the time they were published, convey any sufficiently intelligible information of the insulation of a wire with gutta-percha in such form that it could be used for a submarine cable. It is easy now for us to think that we understand the exact construction of the telegraph line of Siemens referred to in those publications. But this is on account of our knowledge outside of those publications, and

not from any information derived from the publications themselves. The only statement in either of those publications, in regard to the construction of the telegraph line which was then undergoing trial, is, that the experiments or trials were resulting 'in favor of laying the wires underground in coatings of gutta-percha.' How those coatings were to be applied is not stated, nor is it stated that the wire is to be wholly encased, as described in the Simpson patent, with a uniform coating of gutta-percha. Obviously, the general wording of the description will apply to other modes of insulating the wires than that described in the Simpson patent. * * * It thus appears, that there were a number of ways of 'laying wires underground in coatings of gutta-percha,' and no one of those ways, as at that time devised, was a practical method of constructing a submarine cable, nor were any of those ways the mode of insulating a telegraph cable shown in the Simpson patent, to wit, that of encasing a wire on all sides in a uniform coating of gutta-percha, and forming thereby a 'flexible and convenient' telegraph cable. The extracts from the Bremen Gazette and Dingler's Polytechnic Journal, therefore, fail to convey any sufficient information as to the method of insulating a telegraph wire with gutta-percha so as to fit it for use for a submarine cable, and they do not tell how it was fitted for use as a subterranean telegraph." Professor Morton, in his affidavit on the part of the plaintiff, says: "The extract from the Bremen Gazette is substantially identical, so far as it purports to describe any experiments or trials with gutta-percha, with the extract from Dingler's Polytechnic Journal, which I examined in the previous case. * * * In the previous case I expressed the opinion, that the description in the Polytechnic Journal was insufficient to enable any one skilled in telegraphing at that time to insulate a telegraphic wire with gutta-percha, and I still adhere to that opinion, and the opinion applies with equal force to the extract from the Bremen Gazette. The extracts from the Bremen Gazette and from Dingler's Polytechnic Journal merely convey the information that experiments were turning out well for the insulation of the wire with gutta-percha. The final result of those experiments is expressly stated in the publications not to have been reached, and no description whatever is given as to the method of applying the insulation to the

wire, except the general phrase, that the wires are laid under the ground, 'in coatings of gutta-percha.' At that date, in 1847 and 1848, submarine and underground telegraphy were practically unknown. Experiments had been tiled, as I find from the literature of the subject, with many substances, and coatings had been formed of such substances in many ways, but, up to that time, without success. Wires had been wrapped with thread or yarn, and varnished, and such a mode of coating would be included under the general phraseology of the articles in the Bremen Gazette and Dingler's Polytechnic Journal. Wires had been laid in pipes or channels of wood, varnished with resinous matter, and such a mode of laying underground might be included in the general phraseology. Wires had been laid in lead pipe, filled with asphalt, pitch, wax, and other substances, and such mode of coating might be included. Wires had been laid in tubes which had coatings of gutta-percha alternating with insulating supports of earthenware and this mode would be included in the general phraseology of said articles. Coatings might have been applied at intervals along a line of telegraph laid in a subterranean channel way, which would insulate the wire from the sides of the channel way, and support it at such intervals. Other modes of laying wires in coatings of gutta-percha might be included in the phraseology of said articles, other than the mode of encasing the wire in a complete uniform coat of gutta-percha, such as is described in the Simpson patent. While, therefore, it is easy for us, at the present day, to suggest from our knowledge since acquired what Lieutenant Siemens might have done, and to now suggest that his wires were completely covered, along their whole length, with continuous and homogeneous or uniform coatings of gutta-percha, yet that information was by no means conveyed to the telegraphic world by the publications of the Bremen Gazette and Dingler's Polytechnic Journal."

The foregoing observations apply, also, to the Rutter patent of December 23d, 1847, except that the wire cords of Butter were flexible. As pointed out by Mr. Burrill, in his affidavit, the Rutter patent does not describe or suggest the insulating or non-con-ducting property of gutta-percha for use with a telegraph wire under water, nor does it describe a wire completely covered with a uniform coating of gutta-percha, and adapted for use as a submarine telegraph cable or even as a subterranean cable. Mr. Burrill comments on the language of the Rutter specification, and says: "In my view, the specification of Rutter, so far as it relates to the use of gutta-percha, is too meagre and insufficient to convey any practical information in regard to insulating and covering a wire with gutta-percha for any purpose, and contains no hint of the use of gutta-percha as a submarine or subterranean cable insulator." Professor Morton, in his affidavit, examines the specification of the Rutter patent, and states, that, in his opinion, it conveys even less information than the extracts from Dingler's Journal and the Bremen Gazette. He also says: "It is impossible to gather from the slight mention made, in this specification, of the uses of gutta-percha, what the patentee understood of its uses or-capacities, and I am by no means convinced by the

specification, that the patentee supposed that gutta-percha was itself an insulating material. However that may be, the patent does not describe the invention described and claimed in the Simpson patent, of a wire adapted for submarine insulation by being encased in a complete and uniform coating of gutta-percha. A covering which would be 'suitable' to protect a swinging cord from rain, dust or contact, as I stated in the former case, in reference to the Wharton patent, would 'not be at all likely to be, and certainly would in no wise necessarily be, equivalent to the article produced by following the-directions of the Simpson patent, or, indeed, available as an insulating conductor for submarine use;' nor would the suggestion of the use of a flat strap 'of leather, gutta-percha or other insulating substance affixed to the hand rail' of an engine, convey any sufficient information of a submarine cable insulated with gutta-percha. Both the construction and conditions of use suggested in the Rutter patent are so essentially different from those described in the Simpson patent, that no one, by following the directions of the Rutter patent, could intelligently construct Simpson's insulated cable." He further states, that, in his opinion, the Rutter patent, for the reasons set forth in his affidavit, does not contain any description of the invention "described and claimed in the Simpson patent.

It is pointed out on the part of the plaintiff that Mr. Renwick, in his affidavit for the defendant, omits to say that he finds in either the Bremen Gazette or the Rutter patent the invention described and claimed in the Simpson patent or that, from either of those publications, he could construct a cable insulated with gutta-percha and adapted for the uses claimed by Simpson; and that the fact that Mr. Renwick is silent on this point is entitled to very great weight in considering the force of these defences. There is great force in these observations. The defects in the affidavits of Mr. Griffin and Mr. Pope and Professor Doremus, before pointed out, in connection with the article in the Bremen Gazette, exist equally in regard to the Rutter patent.

The affidavits of the experts for the defendant, and the argument of its counsel, are largely founded on the erroneous view, that Simpson's patent is invalid if he was not the first discoverer of the insulating property of gutta-percha. It is true that, in the former case, it was held on the evidence, that

Simpson was the first discoverer of the insulating property of gutta-percha, being prior to Faraday, and the publication in the Dingier Journal not being an account of a completed invention. But, as before stated, the claim of the patent is not for that discovery, but is for the means and manner by which that discovery is made use of, to construct such a cable as the specification describes, for such use as is specified.

It appeared in evidence, in the former case, that, in February or March, 1848, Simpson was in Baltimore, exhibiting to Professor Rogers, a gentleman extensively connected with telegraphy, a piece of wire covered with gutta-percha, which he represented as intended to be used under water at drawbridges in rivers, and that it was then and there tested in water and found to be a good insulator. This evidence is cited in the decision of the court in the former case. The structure so exhibited at Baltimore was such a structure as is described in the Simpson patent. It is not described in the Bremen Gazette, or in Dingler's Journal, or in the Rutter patent, or in Faraday's article, or in French's letter of February 10th, 1848. The evidence as to what Craven did, as given in the former case, did not, in my judgment, satisfactorily establish a date for Craven's invention prior to the exhibition by Simpson of such structure in Baltimore. The evidence before the court in the former case and in this case shows that Simpson embodied his invention in the form of a wire encased in gutta-percha in contact with and adhering to the wire, so as to constitute a flexible cable capable of the submarine and other uses set forth in his patent, before it was embodied in such form by any one else in the United States, and before it was patented or described in any printed publication by any one else; and that he originated and conceived what he claimed to have invented. It is, therefore, not necessary, in this case, any more than it was in the former case, to consider the question whether an earlier date than January 24th, 1848, can be assigned to Simpson's invention.

The foregoing views dispose of the criticisms made on Simpson's specifications of January and February, 1848, for, the invention described and claimed in his patent as issued is shown in existence, in a physical structure, in February or March, 1848, at a date earlier than anything adduced against it Irrespective of this, as the view adopted in the decision in the former case, that Simpson meant, in his first two specifications, by the expressions "insoluble india rubber" and "gutta-percha," one and the same thing, still appears to be correct, and is not weakened, but is, if anything; strengthened, by what appears in the present case, it is plain, from an examination of the first two specifications of Simpson, that the invention claimed by him in his patent as issued is fully embodied in those specifications. Those specifications, besides saying that the metallic wire is to be first insulated with gutta-percha, say that the wire thus insulated is to be covered, that is, surrounded continuously throughout its whole length, with glass beads socketed together so as to form a close joint, and that a gutta-percha tube is to be drawn over the glass bead chain, and, of course, surrounding and covering the wire continuously throughout its whole length,

such outer gutta-percha tube being "jointed, cemented and banded together so as to be both water and air-tight" They also state, that it is the outer non-conducting gutta-percha tube, "which encases the whole chain," that throws up an interminable, that is, impassable, barrier between the great volume of water outside of the tube and the interior of the tube, and thus effectually confines and controls the current of electricity passing over the telegraphic wire. They also state, that the joints in the glass chain and the elasticity of the outer gutta-percha tube make the whole sufficiently flexible to give any desired curve. They speak distinctly of using the structure to conduct electricity through water, and call it a submarine conductor of electricity, and it is plain that Simpson designed it especially for submarine use. As remarked in the decision in the former case, the specification of February 21st, 1848, "claims the combination and arrangement of the gums (that is, the interior insulating layer of gutta-percha and exterior tube of gutta-percha) around the wire, as the controlling power which confines the current of electricity to the wire, and prevents its passing off, and it leaves out any claim to the glass beads in connection with the gutta-percha, whatever operation the glass beads may have as non-conductors of electricity." It is manifest, that, in the structure described in the first two specifications, the interior covering of gutta-percha and the glass beads and the outer tube of gutta-percha are intended to be compact and not loose, and that the outer tube would act to insulate the wire and produce the described result, as effectually as if it were in close contact with the wire or with the interior covering of gutta-percha. The specifications show" that Simpson regarded the outer tube and the inner covering as both of them acting to insulate the wire.

As Simpson's attention was directed chiefly to making a cable for submarine use, when he had produced such a cable he had produced one which could, as the specification of his patent states, be "suspended on poles in the air," "or buried in the earth," as well as "submerged in water." Undoubtedly, if the structure of Simpson, as described and claimed by him, were described in a publication, or patented, of a date earlier than Simpson's invention, but stated to be made for underground or aerial use, and not stated to be made for submarine use, it could not be subsequently patented for submarine use. But, as Simpson was the first inventor of

such structure, he has the right, under his patent, to the exclusive use of it for all telegraphic or electric uses to which it is adapted.

All the views presented on the part of the defendant are covered by the foregoing considerations and by those set forth in the decision in the former case. It results, that nothing is shown to destroy the force of such decision or to throw such doubt upon its correctness as to deprive it of the usual weight to be accorded to such a decision on a subsequent application for a preliminary injunction.

In March, 1872, the former, suit for infringement was brought on the patent against the Western Union Telegraph Company. That corporation was the most conspicuous and extensive infringer. That suit was prosecuted with all reasonable diligence by the plaintiff, and was defended with care, research and zeal, by able counsel. The bringing and pendency of that suit was sufficient notice to all other infringers, that the rights conferred by the patent were to be asserted and maintained. Nothing is presented which tends towards showing any affirmative acquiescence by the proprietors of the patent in the use by the defendant in this case of the invention covered by the patent.

The plaintiff, it appears, exercises the rights conferred by his patent, by granting licenses under it. On the 2d of January, 1879, he offered to the defendant a license under the patent on certain specified terms. If the defendant desires to take a license on reasonable terms, it ought to be allowed to do so. There are no data before the court from which it can be determined what is a proper license fee in respect to the defendant. The proper order to be now entered in this case, is, that a preliminary injunction issue to restrain the defendant from making the invention described and claimed in the patent, and also from using the said invention, except the identical wires and cables now used by it, and also from selling, transferring, lending, leasing or parting with in any manner, any wires or cables embodying said invention, or conferring upon any other person, persons or corporation, either in whole or in part, or alone or in conjunction or connection with the defendant, any use of, or right to use, any such wires or cables; that the question of the issuing of a preliminary injunction to restrain the further use of the identical gutta-percha insulated wires or cables now used by the defendant, be postponed until the coming in of the master's report of evidence to be ordered, or until such other or further order as the court may make in the premises, upon the application of either party; and that it be referred to Joseph Gutman, Junior, Esquire, a master of this court, to take proof to be offered by the plaintiff and any opposing proof by the defendant, on the question as to whether or not the license fees offered to be accepted by the plaintiff in his letter to the defendant, dated December 30th, 1878, are or are not reasonable license fees for the future use of the invention aforesaid by the defendant, and, if not, as to what other sums or rates, either greater or less, are such reasonable license fees; and, also, to take such proof as may be offered by the defendant, and any opposing proof by the plaintiff, on the

question as to what, if anything, could be substituted for the gutta-percha covered wires now in use, with equally beneficial results or otherwise, and what would be the expense of such substitution and the time necessary to make the same; and that he take and report the evidence on such questions with all convenient speed, but he is not to report any opinion or decision as to such questions.

{NOTE. For other cases involving this patent, see note to Colgate v. W. U. Tel. Co., Case No. 2,995.}

[1] {Reported by Hon. Samuel Blatchford, Circuit Judge, and here reprinted by permission.}